



SCALING AND ACCELERATING INSTITUTION-  
WIDE ANALYTICS AT GEORGE MASON UNIVERSITY



## PRESENTER INFORMATION

### **David Burge**, Vice President, Enrollment Management George Mason University

David Burge has served as Vice President for Enrollment Management at George Mason University since July 2015. Before coming to Mason, he served as **Executive Director of Admission Services at Arizona State University** and oversaw the execution of new student enrollment strategy for undergraduate and graduate, domestic and international students. Other professional experience includes the **University of Kansas** and the **University of Nebraska-Lincoln**, holding senior leadership roles within each institution's Office of Admissions and Scholarships.



### **1. George Mason University Overview**

### **2. Focus on Analytics**

- Challenges
- Critical Partnerships

### **3. Decision Process**

- RFP Objectives
- Approach to Implementation
- Need Identification
- Data Security

### **4. Next Steps & Vision for Future**

# GEORGE MASON UNIVERSITY OVERVIEW



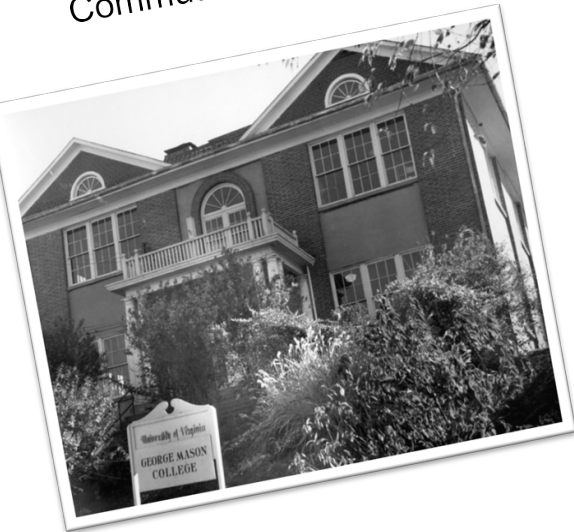
## MASON IS THE LARGEST PUBLIC RESEARCH UNIVERSITY IN VIRGINIA

- Located in Fairfax, Va., 15 miles from Washington, D.C.
- 36,000 students (6,200 residential)
- Students from 130 countries, 50 states
- 82 undergraduate programs, 88 master's, 39 doctoral, law
- 14<sup>th</sup> Most Innovative – *U.S. News & World Report*
- Carnegie Research I Institution

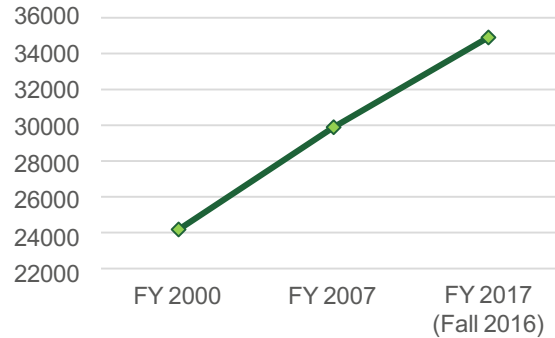


# MASON GROWTH

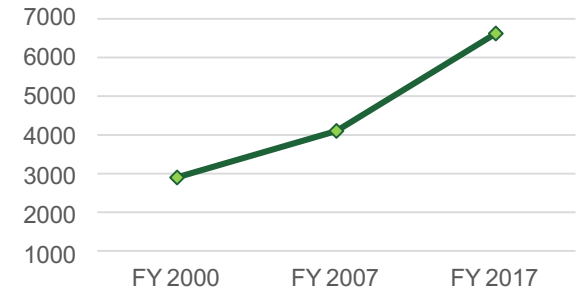
Commuter to Residential



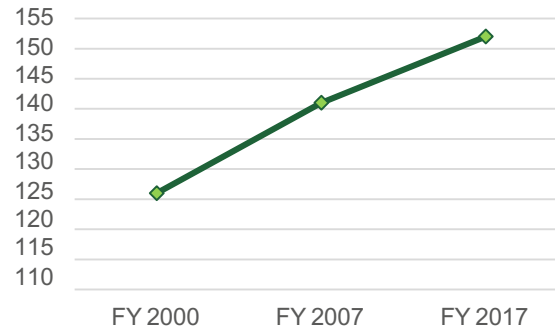
## Enrollment



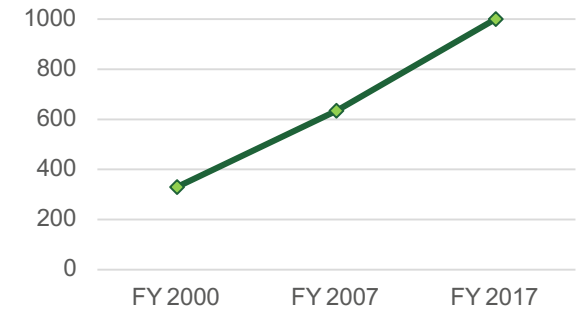
## Number of Residential Beds



## Total Buildings



## Total Budget (\$ in millions)

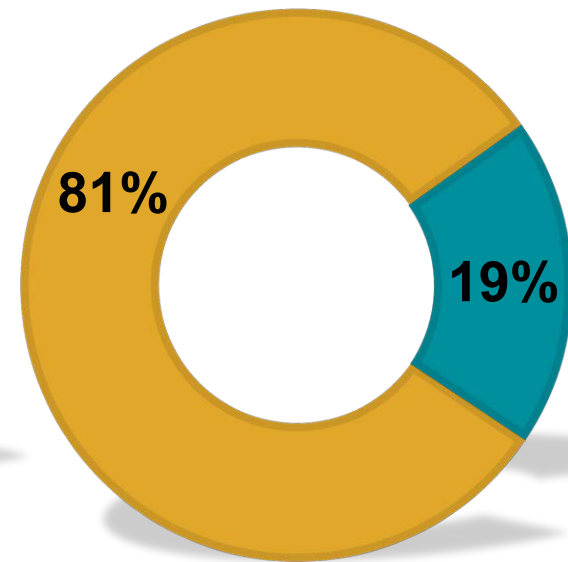
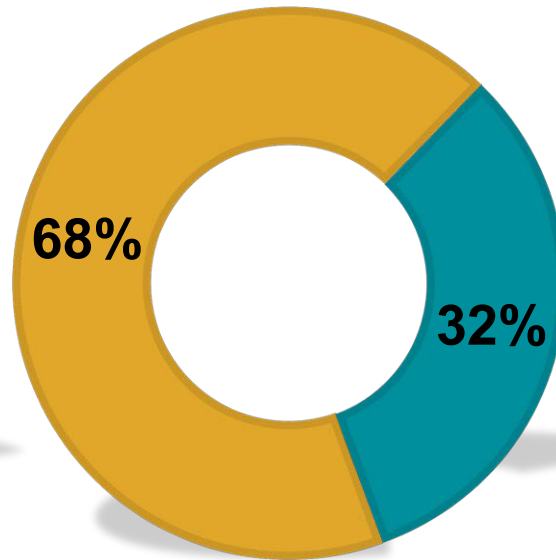
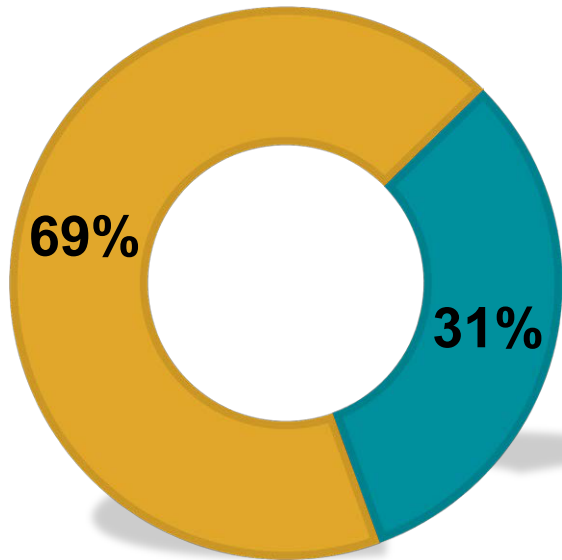


# FALL 2017 ENROLLED STUDENT POPULATION BY HEADCOUNT ~36,000

■ Undergraduate ■ Graduate

■ Full Time ■ Part Time

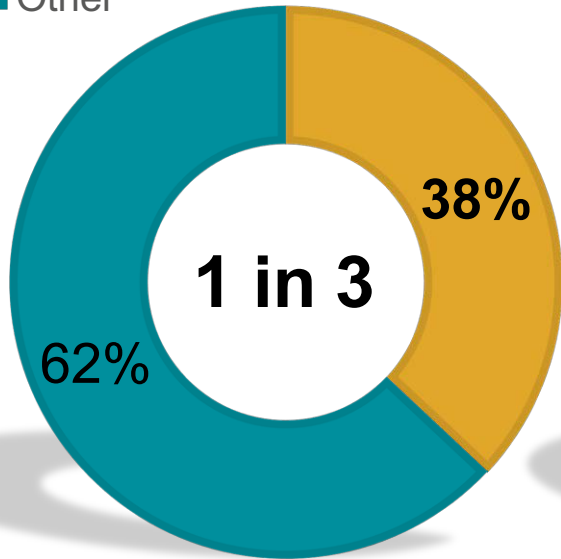
■ In State ■ Out of State



FALL 2017 UNDERGRADUATE STUDENT POPULATION BY HEADCOUNT ~25,000

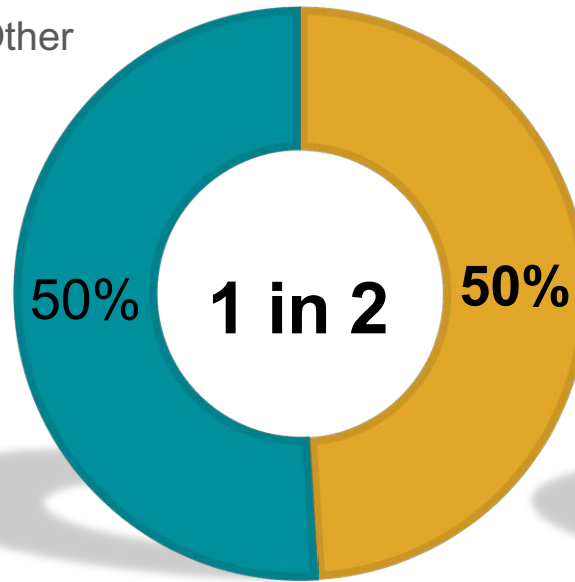
■ First Generation

■ Other



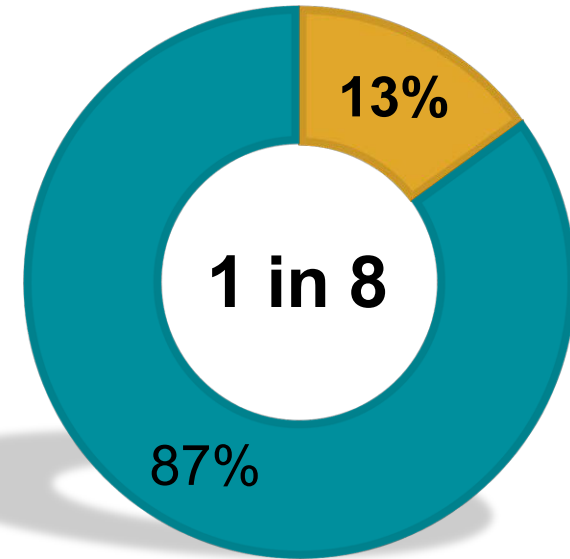
■ Underrepresented Racial/Ethnic

■ Other



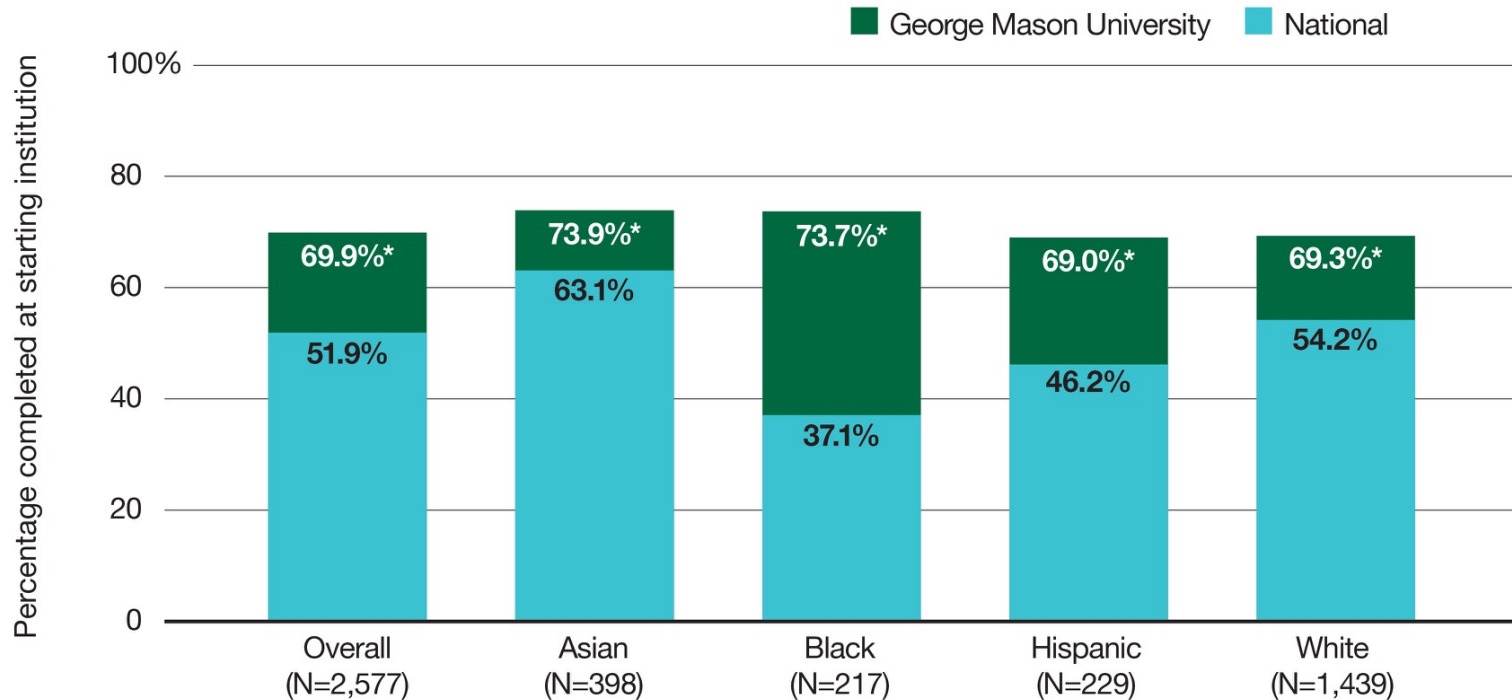
■ Over Age 25 at Entry

■ Other





# AT MASON, GRADUATION SUCCESS DOESN'T VARY BY ETHNICITY



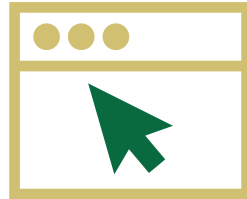
\*Mason statistics do not include the university's 24 part-time freshmen from the Fall 2010 cohort.

Source: National Student Clearinghouse Research Center, George Mason University Office of Institutional Research and Assessment

Experienced tremendous growth in the past 10 years and key initiatives:



Became  
an R1



Expansion  
in online  
offerings



New  
budget  
model



Increasing  
enrollments



Complexity of  
multi-campus  
enterprise



Investments in  
infrastructure



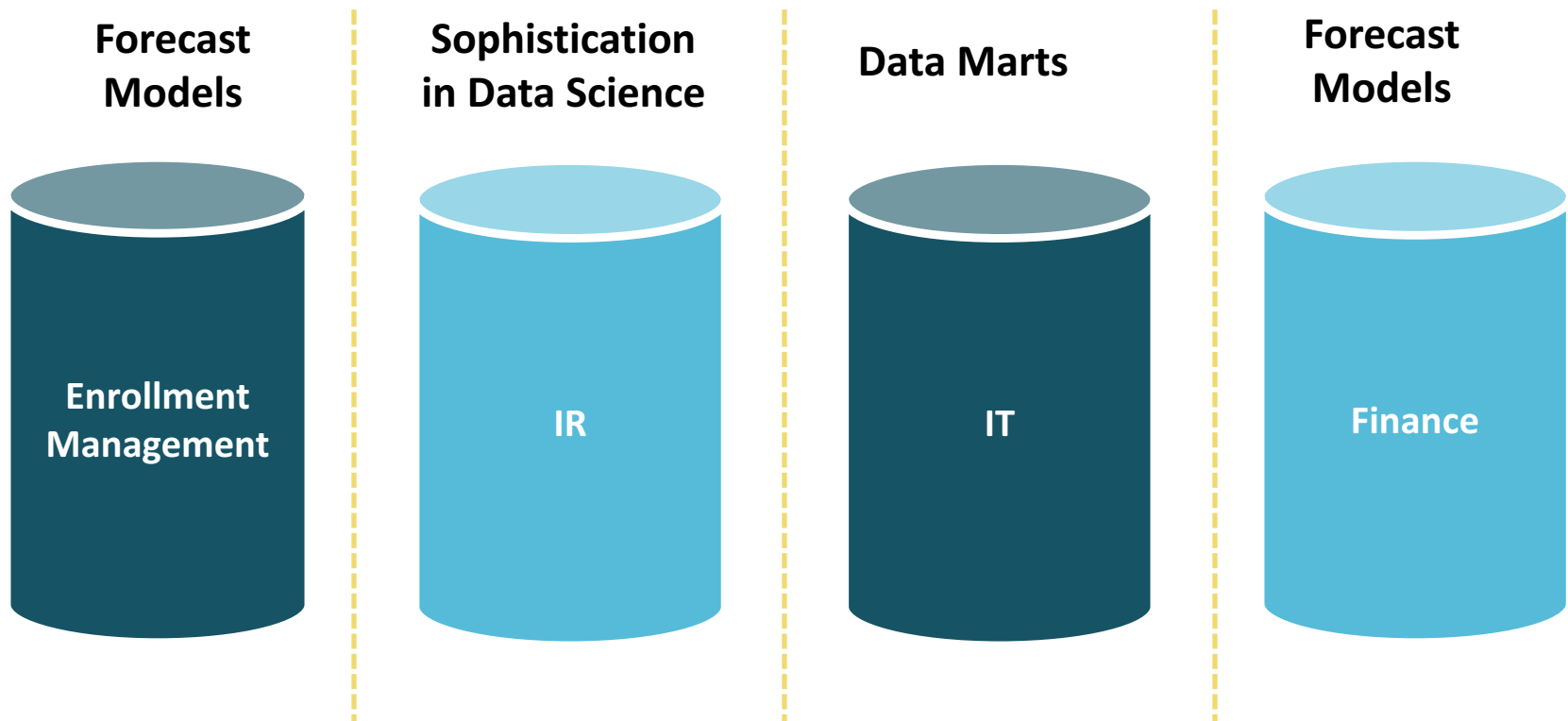
Student experience  
re-design

FOCUS ON ANALYTICS



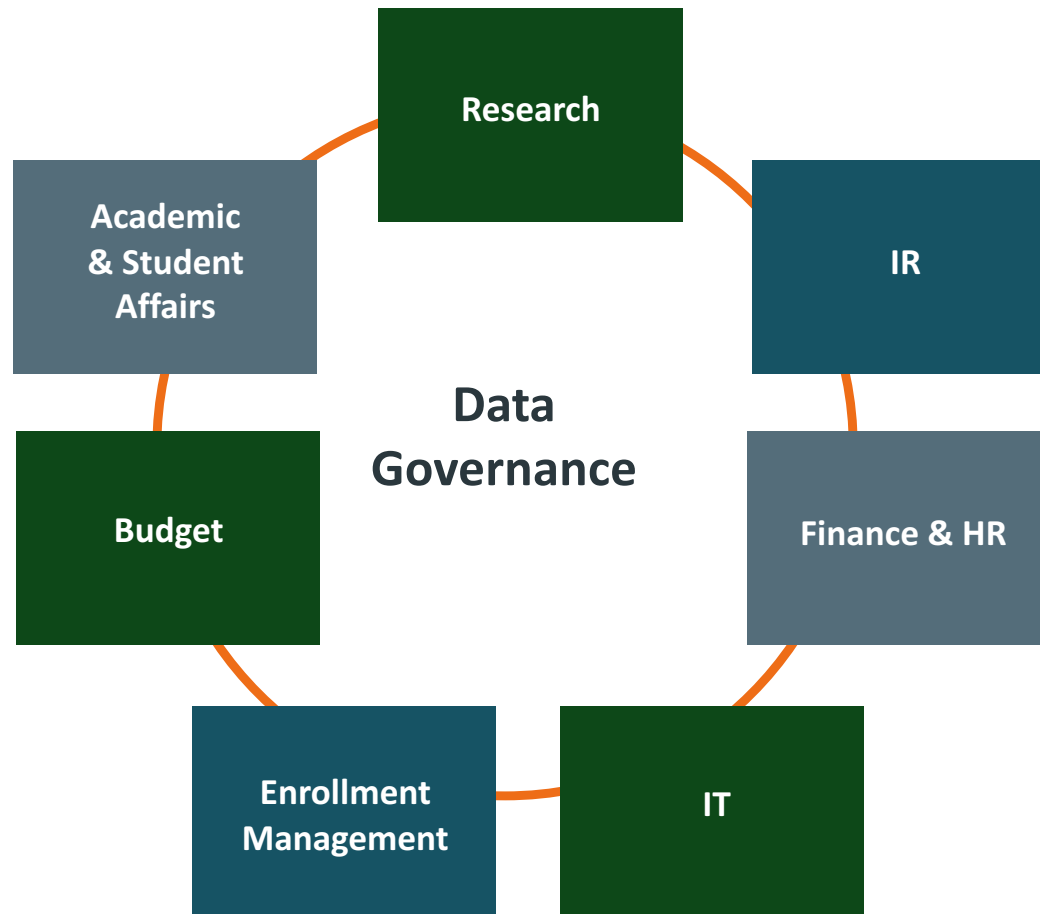
## CHALLENGES ASSOCIATED WITH GROWTH: INFORMATION SILOS

*Made great advancements in analytics across IT and IR **but still needed to bridge the gap across functions and business units.***



## CRITICAL PARTNERSHIPS: IDENTIFIED NEED FOR CROSS-FUNCTIONAL COLLABORATION

*We all needed to come together around data governance.*



*Prioritized questions across the student lifecycle*



- Who is likely to enroll in what program?
- What strategies (marketing or financial aid) would increase yield?

- How does the change in tuition/fees affect total enrollment?
- Who is likely to change a major?
- How does it affect graduation rates?

- Who is likely to return?
- What financial aid will be vacated by those students not returning?

## CHALLENGE: NEEDED TO BE ABLE TO ASK AND ANSWER A VARIETY OF QUESTIONS

### *Prioritized questions related into institutional productivity and financials*

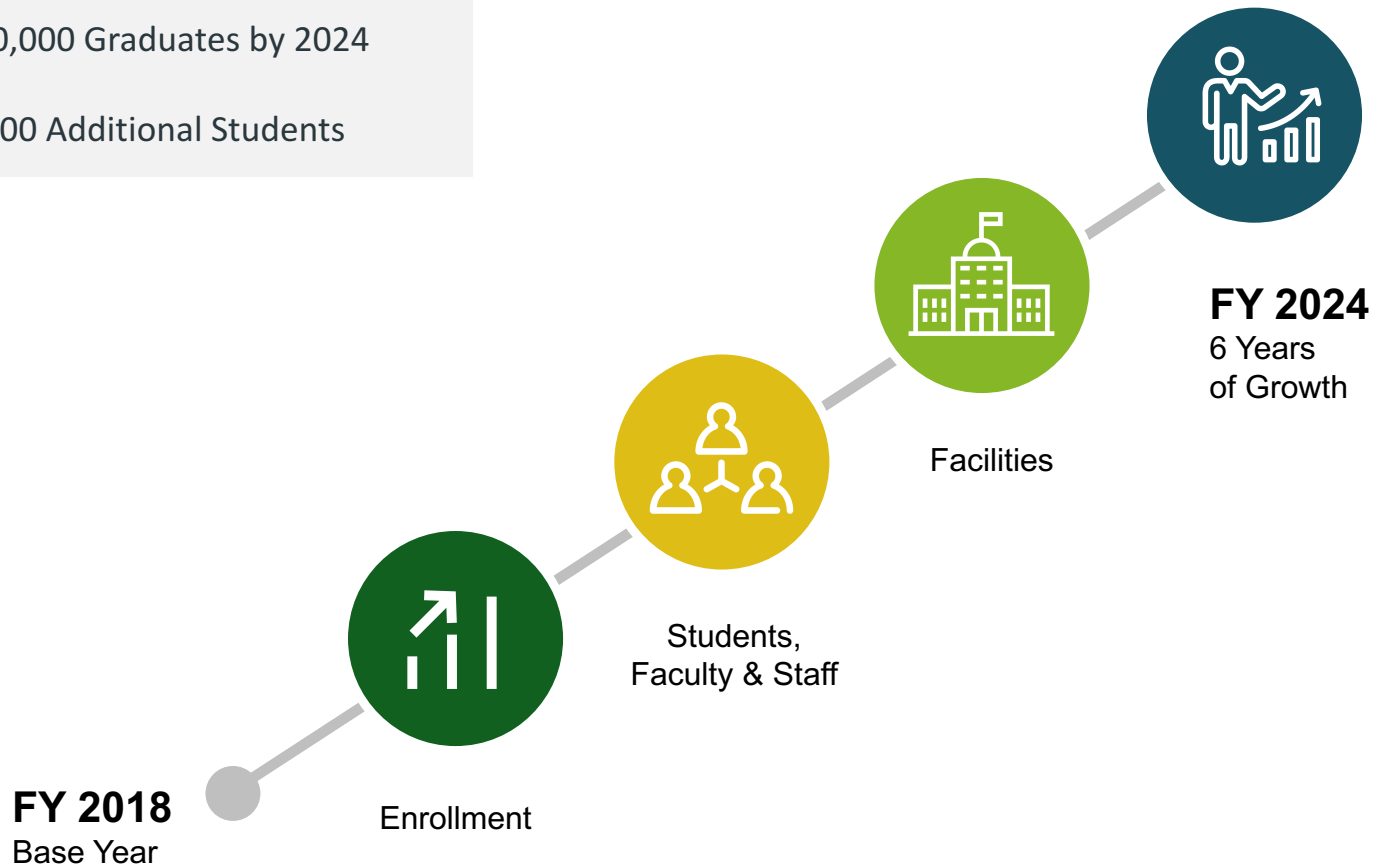


- What percentage of courses are online vs. face-to-face?
- How should we plan for course load and demand in the Fall?
- What are the total instructional costs per FTE student by level, course, degree, program, department, school, and college?
- What are the revenues generated by each student enrolled by course, degree, program, department, school, and college?
- Which degree programs are growing in enrollment and degrees awarded while contributing to revenue?
- What impact would there be if we had different rate structures (by school/college or by program)?

## FY 2024 – How Do We Get There?

100,000 Graduates by 2024

7,000 Additional Students





# BUILDING THE IDEAL STUDENT EXPERIENCE

The paths of this roadmap represent the future of an evolving institution grounded in the fundamental values of what students want and need.



STUDENT CARE

All students should encounter positive, coordinated and nurturing interactions and services in every part of the institution, beginning with their very first interactions and extending through their entire Mason journey.

ENABLE & REINFORCE  
RELATIONSHIP-DRIVEN PRACTICE



SMART CAMPUS

All students should experience a harmony of people, processes, and technologies in a transparent, responsive environment.



STUDENT ACCESS

All students should feel part of an inclusive community of learners, educators and innovators who share in unified, holistic practices and experiences regardless of time, location or mode of learning.

REDESIGN INITIATION EXPERIENCE



DRIVE CONSISTENT ADVISING,  
MENTORSHIP, & COACHING

STUDENT VOICE

Students should be active contributors to the evolving vision and expression of the collective Mason experience.



REDUCE BARRIERS



PROVIDE 24/7 SERVICE

BUILD A FOUNDATION

These five ideals not only drive prioritization for new programs, technology, & services but are also the foundation on which the roadmap is built.



ACCESS

A network of programs, staff, & facilities that removes friction & improves transparency.



INCLUSION

A shared language & approach for celebrating different perspectives & infusing them into the process of learning.



FLEXIBILITY

A system that seamlessly updates and adapts to unique student needs.



TEAMWORK

A partnership between Mason faculty & staff, working in tandem for common goals & collaborating to overcome obstacles.



TRUST

A feedback mechanism for interactions & decisions that delivers on expectations & earns credibility.



DECISION PROCESS

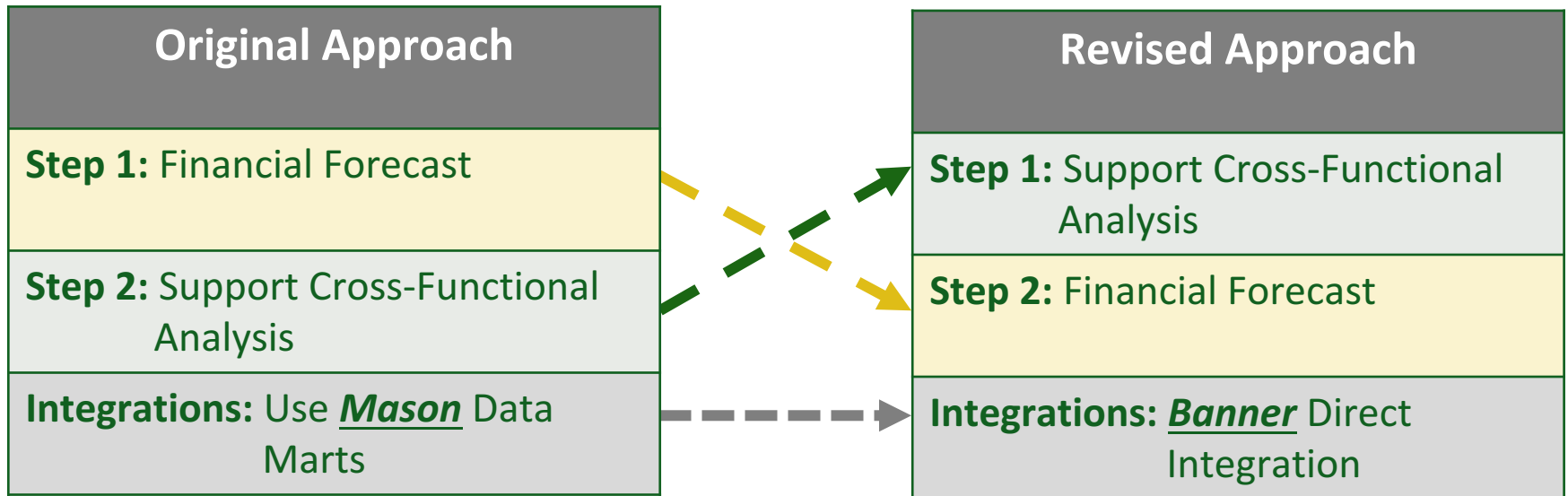


### CORE OBJECTIVES of RFP issued in Fall of 2016:

1. Provide solutions that will operate cooperatively with **Mason's current environment** and also build upon Mason business rules, processes and practices.
2. Rapidly develop short-term analytical capabilities to:
  - a. **Bridge the gap between enrollment, student success and financial data.**
  - b. Develop **predictive and prescriptive modeling.**
3. Through consultation, develop **long-term analytical roadmap.**

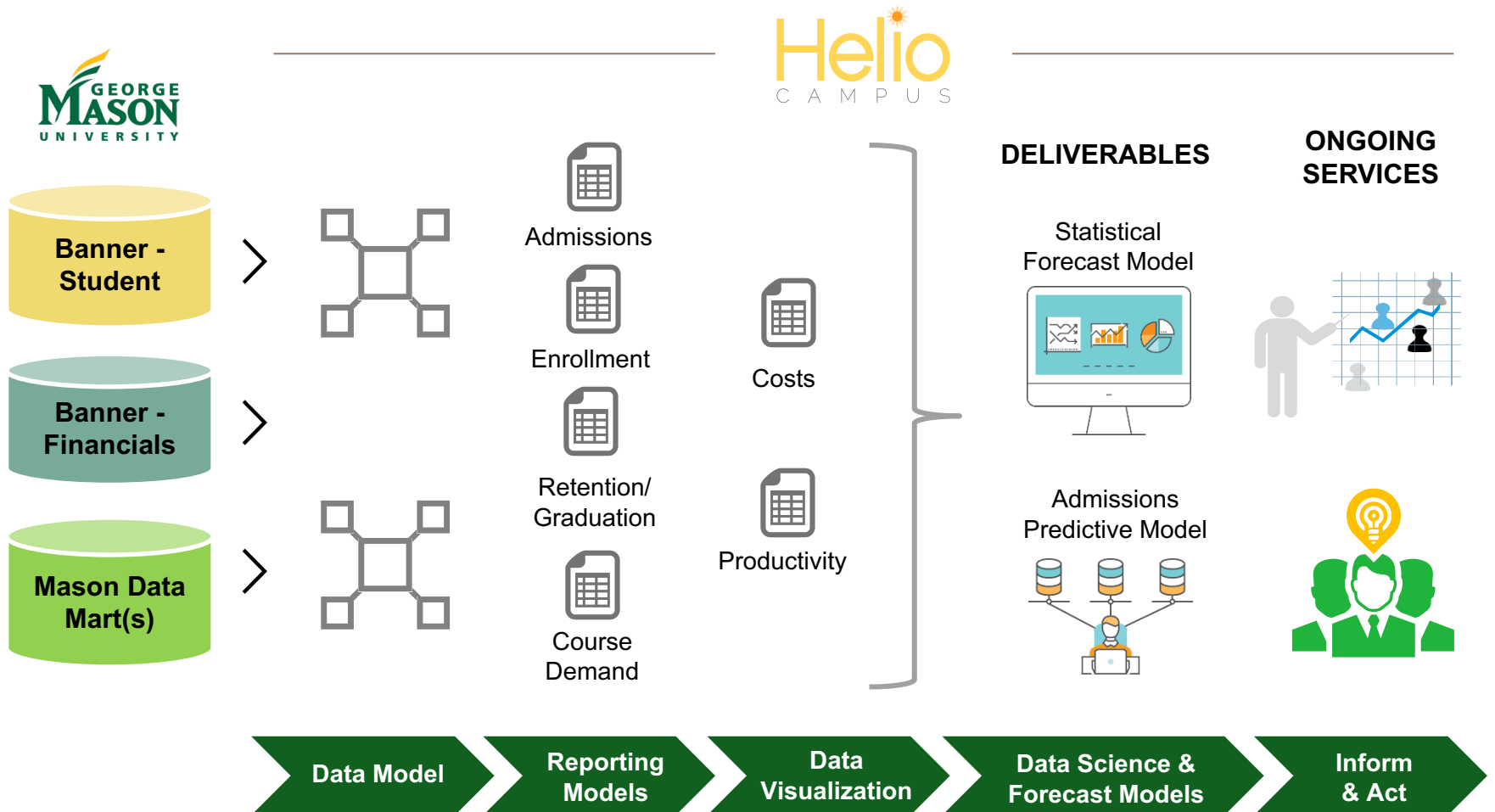
## STRATEGIC PIVOT – REVISED ORDER OF OPERATIONS

*After selected, HelioCampus' consultative approach informed evolution of vision to build foundational analytics capability first.*



# APPROACH TO IMPLEMENTATION AND ONGOING SERVICES

**Objective: Bridge financial and student data to accurately forecast enrollments and revenue.**



## NEED IDENTIFICATION

*Needed visibility into the connections between enrollment, student success and financial data – include enrollment/ revenue integration.*

Who is likely to enroll in what program?

Who is likely to graduate in four or six years?

What financial aid will be vacated by those students not returning?

What strategies (marketing or financial aid) would increase yield?

What are the revenues generated by each student enrolled by course, degree, program, department, school, and college?

What are the total instructional costs per FTE student by level, course, degree, program, department, school, and college?



## DATA SECURITY



Secure  
Infrastructure  
Architecture



Access Control



Database  
Encryption



Secure file  
sharing



Secure IPSEC  
VPNs



Security  
Monitoring,  
alerting and  
Logging



Business  
Continuity and  
Disaster  
Recovery



Vulnerability  
Assessments +  
remediation



Intrusion  
Prevention/  
Anti-malware



Multifactor  
Authentication



Security  
Awareness  
engagements



Policies,  
Procedures and  
guidelines

**NEXT STEPS & VISION FOR FUTURE**





## NEXT STEPS & VISION FOR FUTURE

### 1 Planning

2

#### Technical Build

- Build Infrastructure & Network
- Build Data Replication
- Build ETL
- Build Core Data Models

3

#### Discovery and Business Process Review

- Admissions & Enrollment Management
- Registrar & Academic Affairs
- Financial Aid
- Institutional Research
- Finance

### 4 Validation

### 5 In-Service Planning

### 6 Training

## Q&A

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Better Data. *Brilliant Insights.*